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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,488	12/19/2001	Alan W O'Neill	36-1675	7051

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EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,488

Applicant(s)

O'NEILL ET AL.

Examiner

Derrick W. Ferris

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-17, 21 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 5-7, 18-20, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the Abstract may not exceed 150 words and should be one paragraph in length. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: please provide titles for each section (e.g., Background of Invention, Brief Summary of Invention, Brief Description of Drawings, Detailed Description of Invention, etc.). See MPEP § 608.01(a).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 8-17, 21, and 24-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,434,134 B1 to *La Porta et al.* ("*La Porta*") in view of "Cellular IP: A new Approach to Internet Host Mobility" to *Valko et al.* ("*Valko*").

As to **claim 1**, *La Porta* teaches e.g., in figure 2 a first access node as BS 5 and a second access node as one of Base stations 6, 7, or 8 with respect to a *modified* HAWAII approach. With respect to assigning one or more network addresses to a first access node as one or more home addresses of said first access node, each domain, which is based on a network subnet, has a DHCP server that assigns at least one address to a mobile, see e.g., column 2, lines 10-33 and column 5, lines 1-15. With respect to dynamically

allocating a first said home address to a first mobile node being served via a communications link by said first node, at least one routing path in said infrastructure being directed to said first access node for said first home address, each node is assigned at least one address which is dynamically allocated see e.g., Dynamic Home Optimization. With respect to altering routing in said infrastructure when said first mobile node receives service from a second access node by transmitting routing update messages to a limited subset of said packet switching nodes, said subset being localized in the area of a connecting path between said first and second access nodes, such that at least one routing path in said infrastructure is directed to said second access node for said first home address, see e.g., the Path Setup Schemes. In particular, the mobile sends a handoff path message to the new base station (i.e., the second access node). A modified version of the handoff path message is then forwarded to the original base station (i.e., the first access node). Thus the routing path is directed to said second access node for said first home address. See as a non-limiting example, figure 13. With respect to allocating said first home address to a second mobile address being serviced by said first access node, see e.g., powering down a mobile with respect to DHCP at e.g., column 9, lines 38-52 since the IP address is relinquished.

La Porta is silent or deficient to the further limitation of subsequently altering routing in said infrastructure such that at least one routing path in said infrastructure is directed to said first access node for said first home address.

Valko teaches the further recited limitation above at e.g., middle paragraph on page 59 for Section 4.4. In particular, *Valko* teaches that it is well known in the art to send packets to both stations until the routing changes are fully configured.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *La Porta* by clarifying that it is well known in the art to send packets to both base stations until the routing changes are fully configured.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to not lose any data sent via the original base station path. In particular, *Valko* cures the above-cited deficiency by providing a motivation found at e.g., middle paragraph on page 59 for Section 4.4. Second, there would be a reasonable expectation of success since both references teach transmitting wireless packets. Thus the references teach the above claim limitation(s).

As to **claim 2**, see similar rejection to claim 1 where the routing updates are sent via the mobile to the second (new) base station. The second (new) base station then forwards the routing requests to the first (original) base station. Thus the routing requests originate from a second (new) base station when the modified routing requests are forwarded to the first (original) base station.

As to **claim 3**, the routing request can be sent to more than one router, such as the domain router), which are adjacent to the connecting path.

As to **claim 4**, see similar rejection to claim 1.

As to **claim 8**, *La Porta* teaches a handoff between base stations either in the same or in different domains.

As to **claim 9**, see e.g., powering down a mobile with respect to DHCP at e.g., column 9, lines 38-52 since the IP address is relinquished.

As to **claim 10**, *La Porta* teaches a handoff between base stations either in the same or in different domains. *La Porta* also teaches using various routing interior gateway routing protocols such as RIP, see e.g., column 31, lines 47-61.

As to **claim 11**, see e.g., figure 2 with respect to a cellular network.

As to **claim 12**, see e.g., figure 2 with respect to a fixed-line Internet access provider via Internet 100.

AS to **claim 13**, RIP performs routing on a hop-by-hop basis.

As to **claim 14**, see e.g., figure 2 with respect to a mobile 114 communicating with a corresponding node CN 110.

As to **claim 15**, see similar rejection to claim 1.

As to **claim 16**, since the routing message is sent to the first access node (i.e., the originating base station) the routing message is a unicast message.

As to **claim 17**, *La Porta* teaches a handoff between base stations either in the same or in different domains. *La Porta* also teaches using various routing interior gateway routing protocols such as RIP, see e.g., column 31, lines 47-61.

As to **claim 21**, as the routes are established before a handoff the routes are precomputed.

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As to **claim 24**, since a handover occurs the routing is a link reversal routing protocol.

As to **claim 25**, *La Porta* teaches IP, see e.g., similar rejection to claim 12.

As to **claim 26**, *La Porta* teaches a wireless link, see e.g., similar rejection to claim 11.

Allowable Subject Matter

5. **Claims 5-7, 18-20, 22, 23** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DERRICK FERRIS
PATENT EXAMINER

Derrick W. Ferris
Examiner
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DWF